Subject: INSURV QUARTERLY SURFACE SHIP MESSAGE NR 011 (SHIP
                    MATERIAL

PTTUZYUW RUCOFAZ0001 2040600-UUUU--RHMCSUU.
ZNR UUUUU
P 230600Z JUL 01 ZYB
FM PRESINSURV NORFOLK VA//00//
TO CNO WASHINGTON DC//N09/N096/N09B/N3N5/N4/N43/N45/N7/N75/N76/
    /N77/N78//
CINCLANTFLT NORFOLK VA//N01/N3/N43/N45/N46/N6//
CINCPACFLT PEARL HARBOR HI//N01/N3/N43/N45/N46/N6//
COMNAVSURFLANT NORFOLK VA//N00/N01/N3/N4/N41/N44/N6/N8//
COMNAVSURFPAC SAN DIEGO CA//N00/N01/N3/N4/N41/N43/N44/N6/N8//
COMNAVAIRLANT NORFOLK VA//N00/N01/N3/N43/N45/N8//
COMNAVAIRPAC SAN DIEGO CA//N00/N01/N3/N43/N45/N8//
COMSUBLANT NORFOLK VA//N00/N01/N3/N4/N45//
COMSUBPAC PEARL HARBOR HI//N00/N01/N3/N4/N45//
NAVSURFWARCENDIV CORONA CA//
NAVSEALOGCEN MECHANICSBURG PA//
COMSCLANT NORFOLK VA//N00//
COMSCPAC SAN DIEGO CA//N00/N3//
COMINEWARCOM CORPUS CHRISTI TX//00/01/N3/N4/N43//
COMNAVSPECWARCOM CORONADO CA//00/01//
INFO COMNAVSEASYSCOM WASHINGTON DC//00/00TA2/00Z/04/04L/04M/05/91/
    /91W/915/92B/PMS380//
COMSPAWARSYSCOM SAN DIEGO CA//00/01/05/04//
PEO CARRIERS WASHINGTON DC//00/01//
PEO THEATER SURFACE COMBATANTS WASHINGTON DC//PMS400/PMS400D/
    /PMS400F/
PEO EXW WASHINGTON DC//00/01/PMS307/PMS325/PMS377/PMS420/PMS311//
PEO MUW WASHINGTON DC//00/01/PMS303/PMS407//
COMSC WASHINGTON DC//N00/N01//
COGARD ENGLOGCEN BALTIMORE MD//023//
CNET PENSACOLA FL//01/00X1//
MSC NFAF WEST SAN DIEGO CA//PM1W/PM1E/PM1WX//
MSC NFAF EAST NORFOLK VA//PM1EX/PM1EE//
MSC ENG DIR EAST VIRGINIA BEACH VA//N7E//
NETPDTC PENSACOLA FL//N34//
NAVICP MECHANICSBURG PA//NAVICP-04//
SUPSHIP BATH ME//150//
NAVMEDLOGCOM FT DETRICK MD//03//
NAVSURFWARCEN SHIPSYSENGSTA PHILADELPHIA PA//90/97/9790//
NAVSURFWARCEN CARDEROCKDIV BETHESDA MD//24//
COMNAVSAFECEN NORFOLK VA//00/01/30/35//
SERVSCOLCOM GREAT LAKES IL//JJJ//
COMAFLOATRAGRU ATLANTIC NORFOLK VA//00/01//
COMAFLOATRAGRUPAC SAN DIEGO CA//00/01//
SWOSCOLCOM NEWPORT RI//00/03/33//
COMNAVSURFRESFOR NEW ORLEANS LA//00/01//
INSURVPAC SAN DIEGO CA//00/01/31//
INSURVLANT NORFOLK VA//00/01/31//
FTSCLANT NORFOLK VA//00/4100//

FTSCPAC SAN DIEGO CA//00/405/405J//
BT
UNCLAS //N05100//
MSGID/GENADMIN/PRESINSURV/JUN01//
SUBJ/INSURV QUARTERLY SURFACE SHIP MESSAGE NR 011 (SHIP MATERIAL
CONDITION METRICS)//
REF/A/DOC/FLEET REVIEW BOARD/01NOV00//
REF/B/MSG/CNO WASHINGTON DC/191605ZJUL00//
REF/C/DOC/CINCLANTFLT CINCPACFLT/TROUBLE SYSTEM PROCESS//
REF/D/MSG/QUICKLOOK USS LEYTE GULF/201402ZAUG00//
NARR/REF A IS FLEET REVIEW BOARD SHIP (FRB) MATERIAL CONDITION
METRICS (SMCM) CHARTER. REF B IS NAVOP 008/00. REF C IS
CINCLANTFLT 4700 SER N435/00516 OF 19 AUG 92 AND CINCPACFLT 4700
SER N4315/07073 OF 27 AUG 92. REF D IS QUICKLOOK REPORT FOR
USS LEYTE GULF (CG 55).//
POC/C.S. BARBOUR/CDR/SURFACE TRIALS/-/TEL:DSN 253-7578EXT3020/
TEL:COMM 757-462-7578 EXT. 3020//
RMKS/1. FOR TYCOMS: REQUEST THIS MESSAGE BE READDRESSED FOR WIDEST
DISSEMINATION TO APPROPRIATE SURFACE UNITS AND ISICS.
2. THIS QUARTERLY MESSAGE IS INTENDED TO PROVIDE INFORMATION THAT
WILL HELP IMPROVE SURFACE FLEET MATERIAL CONDITION.
3. REF (A) ESTABLISHED A SHIP MATERIAL CONDITION METRICS (SMCM)
EXECUTIVE STEERING COMMITTEE (ESC) COMPRISED OF CNO N43, CLF N43,
CPF N43, PRESINSURV, SEA 04, SEA 05, NAVSUP AND SPAWAR 05. THE
SMCM ESC IS TASKED TO IMPLEMENT THE MATERIAL CONDITION METRIC AND
STANDARD ASSESSMENT OBJECTIVES OF NAVOP 08/00, REF (B). AMONG THOSE
OBJECTIVES IS SPECIFIC TASKING TO: "DEVELOP AND IMPLEMENT
STANDARDIZED, CONFIGURATION-LINKED ASSESSMENT CRITERIA ACROSS THE
FLEET, USING COMMON MATERIAL CONDITION METRICS AND STANDARDIZED
MATERIAL CONDITION ASSESSMENT PROCEDURES BASED UPON OBJECTIVE AND
COST EFFECTIVE TECHNICAL AND OPERATIONAL STANDARDS THAT WILL SUPPORT
REVOLUTION IN BUSINESS AFFAIRS (RBA) INITIATIVES". THE FOLLOWING
HIGH LEVEL SUMMARY DETAILS PRESINSURV PARTICIPATION AND PERSPECTIVE
IN DEVELOPING COMMON MATERIAL CONDITION METRICS AND STANDARD
ASSESSMENT CRITERIA.
4. SMCM ESC WORKING GROUPS DEVELOPED A PROTOTYPE COMMON
MATERIAL CONDITION METRIC APPROACH AND SUPPORTING STANDARD
ASSESSMENT CRITERIA BASED ON THE CG 47 CLASS. THESE METRICS AND
ASSESSMENT CRITERIA ARE BEING EVALUATED DURING ACTUAL SHIP ASSESSMENT
EVENTS TO VALIDATE THAT THEY SUPPORT:
- FLEET AND OPNAV MAINTENANCE REQUIREMENT DEVELOPMENT
- TYCOM ASSESSMENT AND MAINTENANCE MANAGEMENT PROCESSES
- SYSCOM FLEET SUPPORT AND LIFECYCLE ENGINEERING REQUIREMENTS
- INSURV ASSESSMENT REQUIREMENTS
- SHIP IDTC ASSESSMENT EVENT COORDINATION AND REDUCTION
5. COMMON METRICS DEVELOPMENT.
A. BACKGROUND: A FUNDAMENTAL TENENT OF THE SMCM WORKING GROUPS IS
TO FIRST COORDINATE, LEVERAGE AND EVOLVE EXISTING MATERIAL CONDITION
METRICS BEFORE CRAFTING NEW APPROACHES. SMCM WORKING GROUPS ARE
PURSUING A METRIC APPROACH BASED ON EXPANDING CLF/CPF'S EXISTING C5
TROUBLE SYSTEM PROCESS (TSP), REF C. THE PREMISE IS TO EVOLVE AND
IMPROVE TSP'S EQUIPMENT OPERATIONAL CAPABILITY (EOC) METRIC, AND
APPLY IT TO HM&E SYSTEMS. SPECIFICS INCLUDE:
-THE C5 EOC METRIC IS DERIVED FROM THE EVALUATION, USING PMS, OF A
SYSTEM'S COMPONENTS THAT ARE DECOMPOSED IN A WEIGHTED, HIERARCHICAL
STRUCTURE. THE EQUIPMENT EOC GRADE IS DETERMINED BY "SUMMING" UP

THE EVALUATION/SCORES OF INDIVIDUAL COMPONENTS.
- TSP-LIKE HM&E EOC METRIC MODELS, COMBINED WITH EXISTING C5 EOC
MODELS, RESULT IN A "TOTAL SHIP" METRIC MODEL. AN EOC-BASED MODEL
STRUCTURE PROVIDES A STANDARD MATERIAL CONDITION METRIC AT BOTH THE
INDIVIDUAL EQUIPMENT LEVEL AND AT THE SHIP-MISSION LEVEL.
- BASED ON THE C5 TSP EXPERIENCE, EQUIPMENT-LEVEL EOC METRICS SUPPORT
TYCOM MAINTENANCE MANAGEMENT-PRIORITIZATION REQUIREMENTS, SYSCOM/ISEA
LIFECYCLE ENGINEERING ANALYSIS, AND INSURV ASSESSMENT REQUIREMENTS.
THE "ROLL-UP" OF EQUIPMENT/SYSTEM EOCS TO A SHIP OR MISSION-LEVEL
EOC SUPPORTS ANALYSIS AND DEVELOPMENT OF MAINTENANCE BUDGET
REQUIREMENTS FOR TYCOM, FLEET AND OPNAV STAFFS.
- "CONFIGURATION-LINKAGE" IS ACHIEVED BY LINKING THE COMPONENTS OF
THE EOC MODELS TO THE CORRESPONDING ELEMENTS IN THE SHIP'S EXISTING
CONFIGURATION FILES. ESSENTIALLY AN EOC MODEL IS A SIMPLIFIED,
FUNCTIONAL VIEW OF A SHIP'S EXISTING SCLSIS-BASED CONFIGURATION.
- EXPANDING TSP/EOC METRICS TO HM&E SYSTEMS PROVIDES A
VALIDATED, COMMON APPROACH TO SUPPORT THE EXISTING NAVY TMI/TMA
PROCESSES. TSP IS THE ESTABLISHED PROCESS TO DEFINE C5
TMA-TMI ISSUES.
B. APPROACH/STATUS: SMCM WORKING GROUPS COMPLETED THE DEVELOPMENT
OF A PROTOTYPE TOTAL SHIP EOC MODEL FOR THE CG 47 CLASS. SPECIFICS
INCLUDE:
- THE PROTOTYPE CG 47 MODEL INCLUDED THE CREATION OF AN SCLSIS-
LINKED, HM&E EOC MODEL COMBINED WITH THE REFINEMENT OF THE
EXISTING CG 47 C5 EOC MODEL.
- NSWC CORONA LED THE HM&E MODEL DEVELOPMENT WITH SUPPORT FROM
FTSCLANT, FTSCPAC, INSURV, NAVSEALOGCEN, PMS 400F, CG 47 PLANNING
YARD (PY) AND CG 47 CONFIGURATION DATA MANAGER (CDM). IT IS
IMPORTANT TO NOTE THAT MODEL DEVELOPMENT REQUIRES COORDINATED
SUPPORT FROM BOTH FLEET AND PEO SPONSORED ACTIVITIES.
- THE CG MODEL AND RESULTING EOC METRICS ARE UNDERGOING EVALUATION
BY NSWC CORONA USING MATERIAL CONDITION RESULTS FROM THE USS LEYTE
GULF'S APRIL 01 C5RA-SEMAT-MI ASSESSMENT EVENT AND FROM PREVIOUS
CG 47 SEMAT AND C5RA RESULTS.
- A PROPOSED EOC HM&E MODEL DEVELOPMENT SCHEDULE AND FUNDING
REQUIREMENT FOR REMAINING SHIP CLASSES IS UNDER REVIEW.
C. INSURV INTERFACE/COORDINATION: INSURV IS RESTRUCTURING ITS
ASSESSMENT PROCESSES TO SUPPORT AN EOC-BASED MATERIAL CONDITION
METRIC APPROACH. THIS CREATES A COMMON METRIC APPROACH WITH CURRENT
FLEET C5 TSP PROCESSES AND A COMMON APPROACH WITH THE PROTOTYPE SMCM
HM&E EOC STRUCTURE. SPECIFICS INCLUDE:
- INSURV NOW ASSIGNS EOC GRADES AND PRODUCES EOC-BASED METRICS IN ITS
MATERIAL INSPECTIONS FOR INDIVIDUAL C5 AND HM&E SYSTEMS.
- INSURV IS RECONFIGURING ITS C5 EQUIPMENT DECKS (DATA COLLECTION
STRUCTURE) TO CORRESPOND TO THE CONFIGURATION ITEMS AND STRUCTURE IN
THE ESTABLISHED C5 SYSTEM EOC MODELS.
- INSURV INSPECTORS WERE ACTIVE PARTICIPANTS IN THE DEVELOPMENT
AND REVIEW OF THE PROTOTYPE CG 47 HM&E EOC MODELS.
- ASSUMING CONTINUED MODEL DEVELOPMENT, INSURV IS COMMITTED TO
SUPPORTING FUTURE SHIP CLASS HM&E MODEL DEVELOPMENT AND
RESTRUCTURING
INSURV'S HM&E DECKS ACCORDINGLY.
6. STANDARD ASSESSMENT CRITERIA.
A. BACKGROUND: BASED ON THE TSP EXPERIENCE, A CRITICAL ELEMENT IN
THE DEVELOPMENT OF AN EFFECTIVE EOC METRIC MODEL IS THE USE OF
STANDARD SYSTEM/EQUIPMENT ASSESSMENT CRITERIA. STANDARD COMPONENT

TESTS LEAD TO STANDARD, COMMON EOC "GRADING" THAT ENABLE EFFECTIVE COMPARATIVE ANALYSIS AND PRIORITIZATION OF MAINTENANCE RESOURCES. SPECIFICS INCLUDE:
- THE EXISTING C5 TSP PROCESS HAS A BASIC SET OF AGREED UPON PMS-BASED TEST CRITERIA FOR C5 SYSTEMS.
- CONFIGURATIONS SPECIFIC C5 TEST PACKAGES ARE COMPILED BASED ON SHIP'S CDM/SCLSIS FILES TO SUPPORT STANDARD C5RA ASSESSMENT EVENTS.
- THE C5 TESTS ARE PMS BASED WHICH PROVIDES AN ESTABLISHED, COST EFFECTIVE, UPDATED TEST SOURCE.
- ACHIEVING PRELIMINARY CONSENSUS ON STANDARD HM&E ASSESSMENT CRITERIA WAS A KEY ELEMENT IN THE PROTOTYPE CG HM&E EOC MODEL DEVELOPMENT.
B. APPROACH/STATUS: FTSCPAC AND FTSCLANT SME'S ASSIGNED A PROPOSED SET OF STANDARD TEST CRITERIA TO HM&E SYSTEMS AS PART OF THE CG HM&E MODEL DEVELOPMENT. SPECIFICS INCLUDE:
- FTSC SME'S DREW FROM ESTABLISHED TECHNICAL SOURCES: PMS, TECH MANUALS, TECH BULLETINS, ETC.
- THE PROTOTYPE CG HM&E TEST PACKAGE WAS CHOPPED BY INSURV. THE RESULT WAS A BASELINE COMMON CG HM&E TEST PACKAGE APPROVED BY TYCOM ASSESSMENT AGENTS (FTSC) AND INSURV.
- THE HM&E TESTS AND THE EXISTING C5 CG TEST PACKAGE CREATED A BASELINE TOTAL SHIP CG TEST PACKAGE.
- THIS PRELIMINARY PACKAGE WAS EXERCISED DURING THE COORDINATED SEMAT-C5RA-MI ASSESSMENT EVENT ON USS LEYTE GULF (CG 55) IN APR 01, REF D.
- SMCM ESC INTENT IS TO TRANSITION ALL FUTURE HM&E STANDARD CRITERIA TO PMS AS AN EFFICIENT PROGRAMMATIC MEANS TO MAINTAIN AND UPDATE TEST REQUIREMENTS.
- SELECTING COMMON, PMS-BASED EQUIPMENT ASSESSMENT PROCEDURES IS INCLUDED IN THE SMCM PROPOSED EOC HM&E MODEL DEVELOPMENT SCHEDULE AND FUNDING REQUIREMENT FOR THE REMAINING SHIP CLASSES.
C. INSURV INTERFACE/COORDINATION: INSURV IS RESTRUCTURING ITS ASSESSMENT PROCESSES TO PROMOTE COMMON ASSESSMENT CRITERIA WITH TYCOM/FTSC ASSESSMENT STANDARDS. SPECIFICS INCLUDE:
- INSURV HAS ADOPTED FOR USE IN ALL MI'S THE STANDARD C5RA TEST PACKAGE AS THE BASIS FOR ALL C5 SYSTEM ASSESSMENTS.
- THE PROTOTYPE SMCM CG 47 HM&E EOC MODEL DEVELOPMENT ESTABLISHED A MECHANISM TO DEVELOP COMMON HM&E STANDARDS AMONG TYCOMS, FTSCS, ISEAS AND INSURV.
- COORDINATED ASSESSMENT PILOTS BETWEEN INSURV AND TYCOMS SUCH AS USS GETTYSBURG C5RA-SEMAT-MI, USS BOXER C5RA-MI, USS ANTIETAM C5RA-MI AND USS LEYTE GULF C5RA-SEMAT-MI, PROVIDED OPPORTUNITIES TO EXECUTE AND REFINE COMMON ASSESSMENT CRITERIA.
-THESE PILOTS ALSO OFFER OPPORTUNITIES TO REFINE COORDINATED INSURV-TYCOM-SYSCOM ASSESSMENT EVENTS THAT REDUCE THE SHIP ASSESSMENT BURDEN DURING THE IDTC.
7. SUMMARY: SMCM WORKING GROUP PROGRESS ON COMMON MATERIAL CONDITION METRICS AND ASSESSMENT PROCEDURES IS ENCOURAGING. THE TSP EOC METRIC MAY NOT BE THE ULTIMATE METRIC SOLUTION, BUT IT IS PROVING TO BE AN EFFECTIVE POINT OF DEPARTURE AND FOCAL POINT FOR WORKING COMMON METRICS AND ASSESSMENT CRITERIA ISSUES AMONG FLEETS, TYCOMS, SYSCOMS, PEOS AND INSURV. THE TOTAL SHIP TSP-EOC METRIC APPROACH BUILDS ON AN ESTABLISHED, ENGINEERED PROCESS THAT MANDATES THE DEVELOPMENT AND USE OF STANDARD ASSESSMENT CRITERIA. IN TURN, STANDARDIZING ASSESSMENT CRITERIA AMONG TYCOMS, ISEAS, FTSCS AND INSURV FACILITATES EFFECTIVE COORDINATION AND IMPROVED EFFICIENCIES

IN IDTC ASSESSMENT METHODS . . . "ASSESS ONCE, USE MANY". INSURV IS
WORKING IN CLOSE CONCERT WITH THE SMCM EFFORT AND ADJUSTING ITS
PROCESSES ACCORDINGLY. FURTHERMORE, PILOT EFFORTS TO COORDINATE
INSURV MATERIAL INSPECTIONS WITH TYCOM ASSESSMENT EVENTS ARE PROVING
TO BE EFFECTIVE CATALYSTS AND TEST BEDS FOR ADVANCING COMMON METRICS
AND STANDARD ASSESSMENT PROCEDURES. THE DEVELOPMENT OF ADDITIONAL
CLASS HM&E EOC MODELS, BASED ON THE CG 47 PROTOTYPE EFFORT, ARE
IMPORTANT TO CONTINUED PROGRESS TOWARDS MEETING NAVOP OBJECTIVES.
INSURV STRONGLY SUPPORTS SMCM ESC EFFORTS TO FUND FURTHER HM&E EOC
MODEL DEVELOPMENT FOR ALL SHIP CLASSES.//
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